

Biospheric Sciences Branch Highlights January-February 2001

**** First Workshop in support of NASA Carbon Cycle Science Initiative held at Goddard, Jan 9-11**

In support of the development of a new NASA Carbon Cycle Initiative, the Goddard Carbon Cycle Project Office (970.2) hosted the first of three workshops to help define the scope of the Initiative. This first workshop focused on the science goals and measurement requirements that need to be addressed by the new NASA Initiative. About 60 people attended the three day workshop including Code YS managers from NASA HQ, NASA Center representatives, representatives from other agencies (NOAA, DOE, NSF/NCAR, USDA) and a group of scientists active in carbon cycle science and research planning activities. Future workshops will define and prioritize specific activities including missions, facilities, and science that need to be supported by the Initiative.

**** Landsat Data Continuity Mission (LDCM) Workshop**

A public workshop was held on the Landsat Data Continuity Mission (LDCM). The USGS hosted the meeting at their Reston, VA, headquarters on January 9 and 10. The purpose was to solicit the requirements of the Landsat community for the LDCM, garner their reactions to the proposed data buy approach, and listen to their comments on a draft LDCM Data Specification. Over 200 participants attended. The participants listened to and interacted with a series of five panels where each panel represented a different sector of the Landsat community: scientists, data providers, civil agency data users, commercial and NGO data users, and value added resellers. A surprising amount of common ground was found amongst these sectors.

An executive summary on the workshop is posted on the LDCM web site: <http://ldcm.usgs.gov/>. Copies of the presentations made during the workshop are also posted.

An article on the workshop was published in the Jan. 15th edition of Space News on p. 4. The title of the article is "Skepticism Surrounds NASA's Plans to Buy Landsat Data."

**** Terra Science Working Group Meeting at IWG**

Jon Ranson organized and chaired a SWAMP meeting during the EOS IWG in Ft. Lauderdale Jan. 31. The focus of the meeting was the proposed deep space calibration maneuver for Terra. John Teter, a Terra project engineer, summarized a series of simulations designed to assess the risk to the ASTER

instrument and concluded the probability of damage to the VNIR cameras was less than 2 in one million. Ranson then presented the Project Science viewpoint that the maneuver was critical for required CERES instrument accuracies and would greatly benefit the sea surface temperature product of MODIS. The ASTER science team representatives agreed in principle to the maneuver. A recommendation to move forward with the maneuver was made. Dialog with the ASTER instrument engineer who was not present at the meeting is in progress to address any remaining concerns about the maneuver.

**** LBA-Ecology Science Open Meeting in Atlanta**

Over 170 scientists from the U.S., Brazil, Peru, and several European countries participated in the LBA-Ecology Science Open Meeting, held in Atlanta from February 12-14. Don Deering and his staff in the NASA LBA-Ecology Project Office organized the meeting along with Project Scientists Michael Keller (LBA-Ecology; University of New Hampshire) and Roni Avissar (LBA-Hydrometeorology; Rutgers). The meeting's 66 oral presentations and 56 posters were organized into parallel sessions based on the project's science themes, which are a subset of the complete science questions being addressed by the Brazilian-led LBA Project. Many of the results presented were of a preliminary nature, which was expected considering that in situ field data collection only began in 2000 for most projects. The key exception was in some of the land cover studies, which rely mostly on demographic and satellite land cover data, and which are reporting potentially disastrous results from the proposed paving of existing but currently unpaved roads in the Amazon.

Publication of results from the meeting in a special journal issue was discussed. This meeting also afforded the opportunity for an external scientific review committee to conduct a mid-term assessment of the progress and potential for success in achieving the research program's objectives. A formal report from the nine-member review committee chaired by Bill Reiners (University of Wyoming) will be forthcoming. In a brief summary at the end of the science meeting, the review committee reported to being impressed with the quality of the investigations, and with the caveat of acknowledging their "key-hole view" of the project, they also pointed to some concerns regarding the ability to successfully integrate across the entire Amazon basin, particularly regarding nutrient dynamics and for properly accounting for the wetland areas of the Amazon. These items they feel should be addressed in the NASA Research Announcement for the second phase of the project to be drafted in the next couple of months.

Additionally, during the meeting Project Manager Don Deering and Program Managers Diane Wickland and Garik Gutman hosted a high-level official delegation from Brazil, which included Esper Cavalheiro, Secretary for Policy and Programs for Science and Technology, and his colleagues Isabel Canto

and Manuel Montenegro from the Brazilian Ministry of Science and Technology (MCT). Also, Mauricio Lopes, Director of Research and Development for EMBRAPA participated as a direct result of Don Deering's visit to Brasilia in January and EMBRAPA's desire to improve Amazon scientist participation in NASA-sponsored research in Brazil. Nancy Cohen, Science Officer of the U.S. Embassy in Brasília, and Josefine Durazo, the NASA Headquarters Latin America Desk Officer, also participated in these discussions to improve understanding of MCT's developing plans to re-organize the LBA Project together with Brazil's other research initiatives in the Amazon and NASA's role in this strategy.

****Levine and Kimes interviewed for Maryland Public TV's "News Night Maryland"**

Drs. Elissa Levine and Dan Kimes were interviewed and filmed for a segment on Maryland Public TV's "News Night Maryland" focusing on the "Baltimore Asthma Project". In addition to showing the filmed clip from Goddard, Dr. Levine and Dr. Sheila Weiss, an Epidemiologist from the University of Maryland School of Medicine, were interviewed live on the same show, which was aired on Tuesday, February 27 at 7PM. The Baltimore Asthma Project is a part of Goddard's new Environment and Health Program. The purpose of the project is to examine relationships between environmental conditions, as observed from remote sensing and ground based observations, and childhood asthma which is an especially bad problem in Baltimore City. Drs. Levine and Kimes and their co-investigators are combining the use of GIS, visualizations, and non-linear modeling to identify trends and understand triggers of asthma in children that may be caused by factors in the environment.